

**City of
Bellevue**



Management Brief

Date: March 3, 2014

To: Mayor Balducci and Councilmembers and City Council

From: Nav Ota, Director, Utilities Department

Subject: Fluoride in Drinking Water

This management brief is in response to concerns raised by a citizen related to fluoride in Bellevue's drinking water supply.

Background:

Fluoride is a naturally-occurring element found in soil and water. Fluoridation of drinking water began in the United States in 1945 after extensive studies showed that fluoride helped prevent tooth decay. Fluoridation of the Seattle water supply began in 1970 after a referendum vote in 1968 directed the City of Seattle to fluoridate the drinking water.

Bellevue's Water Supply:

Bellevue purchases water through the Cascade Water Alliance from Seattle Public Utilities. Cascade, as Bellevue's water supplier, has provided us with the attached letter regarding fluoridation of the regional water supply that serves our customers. As Cascade explains in the letter, fluoride levels in the water supply are at the low end of the range set by the Washington State Department of Health and significantly below the fluoride levels in the studies referenced in the recent communications to Bellevue City Council.

Fluoride and Public Health:

Public health, dental, and medical authorities overwhelmingly support drinking water fluoridation as safe and effective. Our local, state, and national public health agencies all strongly support fluoridation. The U.S. Centers for Disease Control (CDC) have proclaimed drinking water fluoridation as one of the 10 great public health achievements of the 20th century. There is also strong support for water fluoridation by other prominent health organizations, including the American Dental Association, American Medical Association, and the American Public Health Association.

Communication and article presented to Council on February 18, 2014 related to fluoride health risks:

Recent communication to Council referenced an article "Fluoride and Children's Intelligence: A Meta-Analysis" which was a systematic review and analysis of a series of studies investigating whether fluoride exposure increased the risk of low intelligence quotient (IQ) in China from 1988 – 2008. The findings of that analysis indicated that children who lived in a high fluorosis

area had higher odds of developing low IQ than those who live in a non-fluorosis or a slight fluorosis area. The referenced water supplies had fluoride concentration levels *of up to 11.5 parts per million or ten times* the recommended level of fluoride for drinking water. The CDC recognizes there are potential adverse health effects of fluoride at levels above recommendations. However, there is no generally accepted scientific evidence establishing a causal relationship between consumption of *optimally* fluoridated water and central nervous system disorders, attention deficit disorders or effects on intelligence.¹

Conclusion:

Health risks are associated with many compounds in drinking water (chlorine, lead, iodine, fluoride, and others). The EPA sets the National Primary Drinking Water Standards for the protection of public health. Fluoridation at the appropriate level is overwhelmingly supported by the scientific and public health community. Bellevue will be requesting periodic updates from our suppliers to stay current on any emerging issues and findings related to fluoride in drinking water.

Attachment:

Letter from Cascade Water Alliance related to Fluoridation

For more information:

U.S. Environmental Protection Agency:

<http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm>

Washington Department of Health:

<http://www.doh.wa.gov/DataandStatisticalReports/EnvironmentalHealth/DrinkingWaterSystemData/FluorideinDrinkingWater.aspx>

Seattle Public Utilities:

http://www.seattle.gov/util/MyServices/Water/Water_Quality/Fluoride/index.htm

Centers for Disease Control: <http://www.cdc.gov/fluoridation/index.htm>

American Dental Association: <http://www.ada.org/fluoride.aspx>

¹ American Dental Association, Fluoridation Facts, 2005 edition



February 27, 2014

Mayor Claudia Balducci
City of Bellevue
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Chuck Clarke

RE: Fluoridation

Dear Mayor Balducci:

Please accept this letter in response to the recent communication to the Bellevue City Council by a citizen related to fluoride in the drinking water supply.

Cascade obtains water for its members from Seattle Public Utilities. All drinking water in this state is monitored closely by the Washington State Department of Health and federally by the Environmental Protection Agency (EPA). Currently, Washington State Department of Health (DOH) does not require public water systems to add fluoride to drinking water. If a community chooses to add fluoride to its drinking water, the amount must be kept between 0.8 and 1.3 parts per million. Seattle's levels – and Cascade's – meet this requirement. This is not only below EPA's allowable levels; it is significantly lower (by a factor of ten) than the studies referenced by the citizen to Bellevue's Council. Fluoride is not a new chemical — it is a mineral that has been used safely and effectively for almost 70 years to significantly reduce the rate of tooth decay.

Fluoridation of community water supplies is simply the precise adjustment of the existing naturally occurring fluoride levels in drinking water to an optimal fluoride level for the prevention of tooth decay. Over 196 million Americans receive water from an optimally fluoridated community water system (0.7 to 1.2 parts per million).

In January 2011, the U.S. Department of Health and Human Services and the U.S. Environmental Protection Agency proposed a recommended level of fluoride in drinking water of 0.7 parts per million. The updated recommendation has yet to be finalized but a decision is expected soon. Seattle Public Utilities has consulted with our local health department (Public Health – Seattle & King County) and the Washington State Department of Health on this issue. As an interim approach, Seattle Public Utilities has adjusted the fluoride level to 0.8 parts per million, closer to the proposed recommendation and at the minimum level within the existing state range which is 0.8 to 1.3 parts per million. Cascade and its members continue to monitor for any changes in the federal and state requirements related to recommended levels of fluoride.

The National Research Council has produced five different reports on fluoride or fluoridation, and it has released three of them since 1993. None of these reports raised any health concerns about water that is fluoridated to the optimal level. Fluoridation decisions are based on the most current science and best practices as recommended by the EPA and the DOH. Seattle and Cascade – and therefore Cascade members – are using the most current information in making decisions and actions. We will continue to monitor best practices/recommendations and as they are announced will keep all Cascade members informed immediately.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chuck", written in black ink.

Chuck Clarke
Chief Executive Officer